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LECTURES ON THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE LUNGS.

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LECTURE XIII.—(Continued.)

PHTHISIS—TREATMENT.

THERE are several remedies which at one time enjoyed a reputation in the treatment of consumption, which is by no means merited. The principal of these are digitalis, hydrocyanic acid, and the acetate of lead. Digitalis was given mainly because the excessive frequency of the pulse, which constitutes so prominent a symptom in many cases of phthisis, cannot be reduced by blood-letting, while it will sometimes partially yield to digitalis. The powers of this remedy extend no further; and as the good results of it are extremely doubtful, while it is often positively mischievous, it is now almost abandoned. I have from time to time made a trial of its virtues, but without satisfactory results.

Much was expected from hydrocyanic acid when it first came into use. It is certainly a good sedative; but as the remedy is necessarily extremely uncertain, and is attended with no little danger when the strength of it happens to be greater than usual, it is, in fact, not much prescribed. I do not, however, object to it, as it unquestionably is a good anodyne. The ferrocyanate of potassa is occasionally a good remedy, possessing some sedative powers, and to some extent controlling the night sweats; the dose which I prefer is five grains three or four times daily, gradually increased to twice that amount, should no effect follow. One of the advantages of the wild cherry bark certainly arises from the proportion of prussic acid which it contains; this is sometimes considerable enough to cause some fever, and a disagreeable sensation of feebleness in the head.

The acetate of lead I have rarely used in the treatment of phthisis proper, although it is recommended for its power in checking the hectic fever. But in the diarrhoea which often occurs, it is one of the most useful remedies,

given in combination with a small dose of opium.

The chalybeates are occasionally resorted to in the treatment of phthisis, especially the iodide of iron, which is given in doses of from ten to thirty drops of the solution two or three times daily. Few patients will bear larger doses, which are apt to cause nausea and a disagreeable feeling of constriction at the epigastrium and head. My own impressions are less favourable to this remedy than they formerly were; it certainly acts well in some cases, but fails entirely as a curative agent, and from its aptness to cause the disagreeable symptoms just referred to, it cannot be given in as large doses, or as frequently as would otherwise be desirable. It differs a little from other chalybeates, and possesses more decidedly alterative properties. Other forms of the same class of remedies are occasionally resorted to; and, like the preparations of iodine, answer best when the patient is depressed, with little or no febrile excitement, and the constitution is feeble and deteriorated.

There are certain mineral waters which have acquired more or less celebrity in the treatment of phthisis: amongst these are some of the springs in the Pyrenees, and the Red Sulphur Springs in Virginia. These are all situated in mountainous districts, which renders the climate injurious to many classes of phthisical patients. In advanced cases, the benefit, if any result, can be but palliative; and the circumstances attending the position of the springs, and the long journey necessary to reach them, should be taken into the account, before advising patients to resort to them. My own experience as to their virtues is limited to a short residence at the Red Sulphur. This is a cold and very agreeable water, containing very little saline substance, and impregnated with a moderate quantity of sulphuretted hydrogen. The analysis of the spring is found, however, not to be complete enough to render it conclusive. The most benefit was derived by patients who were in need of an alterative, especially of one which was capable of acting

upon the digestive canal. Such cases appeared to derive essential benefit from the combined influence of the water and the journey; and in this way, at least, it appears to be serviceable in commencing phthisis, where the irritability of the chest is not great, and there is little or no tendency to acute bronchitis or pleurisy. In the latter cases the climate does not appear to me very favorable, at least not in a wet summer.

The treatment, therefore, of phthisis, is almost entirely indirect, and we hope to check the progress of tubercles by removing accidental complications, or diseases and conditions of body which favour their growth, rather than by acting directly upon the tuberculous secretion. Hence it is necessarily uncertain, and often fails when every thing seems to be most promising; for as tubercles themselves are manifested by but few symptoms, the greatest part of the sufferings of the patient is caused by the complications. These are often readily removed, and the patient is apt to fancy that the apparent amelioration is real.

PNEUMOTHORAX.

There is a lesion of the lungs and pleuræ which is rather a result of disease than a positive morbid action. This is pneumothorax, or perforation of the lung. It is true that as soon as this accident occurs, pleurisy is set up, and only differs from common inflammation in the mingling of the symptoms of the pleurisy with those of the perforation. The mechanism of perforation is very simple; in almost every case it results from tuberculous disease of the lungs, but any alteration of those organs situated near the pleura, and gradually destroying the parenchyma beneath it, may produce the same result. As soon as the pleura is left unsupported by the tissue of the lungs, it becomes of a dull yellow colour, and soon sloughs; a small hole forms in the centre of the dead portion, which is enlarged by the passage of air through it during the act of inspiration. The size of this opening varies from that of a pin's head to a third of an inch in diameter; it is generally of a valvular form, and allows with difficulty the passage of the air from the pleura. As the air enters more easily than it passes out, it of course accumulates in the cavity, and the chest quickly increases in volume, from the quantity of atmospheric air which finds its way into it.

The air is an immediate irritant to the serous membrane, and gives rise to inflammation, which is followed by the secretion of its usual products, lymph and serum. The latter accumulates at the bottom of the cavity, mixed with a few flocculi of lymph, but the greater part of this substance adheres to the surface of the serous coat in the form of a false membrane, which extends to the point of perforation, and then closes it completely, in which case there is no difference between empyema and advanced pneumothorax. The liquid contained in the pleura is at first merely serum, but it afterwards is replaced by pus, which is secreted from the false membrane as in chronic pleurisy.

As pneumothorax is a physical lesion which produces a rapid change in the condition and functions of the viscera of the chest, its physical signs are very evident, and are often beautiful illustrations of the accuracy of physical exploration. The immediate result of the passage of the air into the cavity of the pleura is the collapse of the lung; the inspiratory murmur therefore ceases or is replaced by amphoric respiration, which is often heard over the whole cavity, and in other cases is limited to the part nearest the perforation; the sign is much clearer and sharper than in those cases in which it is caused by a cavity in the substance of the lung, for the walls of the chest are more elastic and produce a clearer sound than those of an ordinary cavity. The expiration, however, is often unheard, for the opening is in many cases too small to allow the air to pass with sufficient freedom to give much sound. In this respect the amphoric respiration differs from that of pulmonary cavities.

The amphoric respiration often ceases after the pus has increased, and the coating of lymph has formed over the opening, and there is then either no sound, or a slight and bronchial respiration heard at a distance at the root of the lungs.

As a necessary attendant upon the amphoric respiration, we find a corresponding resonance of the voice, which follows the same course, and ceases at the same time. The metallic tinkling is another phenomenon of equal interest. It resembles the tinkling of a pin against the sides of a glass or metallic vessel more nearly than any thing else, and was at one

time supposed to depend upon the dropping of a small portion of liquid from the top of the pleura upon the surface of the effusion. Dr. Bigelow, of Boston, performed a number of experiments upon the dead body, and satisfied himself that the cause of the tinkling depended upon the air forcing its way upwards through the liquid, and not in the dropping from above. The tinkling is by no means a constant sign, and is, therefore, much less important than the amphoric respiration and resonance of the voice.

The signs of pneumothorax gradually decline as it passes into ordinary empyema, and the ordinary flatness of percussion follows, with entire absence of respiratory murmur. The quantity of pus is much greater than in common cases of pleurisy; it sometimes amounts to several gallons, and causes extreme difficulty of the respiration.

The rational symptoms of pneumothorax are by no means conclusive, but in most cases they are sufficiently well marked to excite a suspicion of the nature of the accident. They are the usual signs of acute pleurisy with extreme and sudden dyspnoea from the rapid entrance of air into the cavity of the pleura. Their uncertainty arises from the occasional absence of pain in cases of acute pleurisy, and from the dyspnoea not being always very intense. As a general rule, however, if a patient labouring under symptoms of phthisis be taken with very sudden and acute pain in the chest and extreme dyspnoea, there is strong reason for suspecting that perforation of the pleura has taken place; especially if the pain occur during an effort of coughing, or some other sudden shock given to the chest. It is true that all of these symptoms may depend on acute secondary pleurisy, which sometimes develops itself, or at least shows itself almost instantaneously, and the test is therefore to be sought in the physical signs of the disease, which are alone to be relied upon. The pain is described as similar to that occurring in severe cases of pleurisy, as cutting or lancinating, and at first prevents the patient from lying on the affected side, but after the disease has continued for a time, the patient follows the ordinary rule of chronic pleurisy, and lies on his back or on the affected side, in order to avoid the presence of a large quantity of liquid upon the mediastinum. The other

symptoms are also those of pleurisy; the fever which follows the perforation is of the acute kind observed in cases of pleurisy, with a rapid and rather wiry pulse, followed by abundant sweats at night. After the effusion has become purulent, the fever approaches more nearly to the hectic form, and the patient complains much more frequently of chills than he does in the earlier stages of the disease. The patient gradually loses flesh, but does not become nearly as much emaciated as in those cases in which tuberculous disease is passing through its ordinary course; nor is the disturbance of his general health nearly as great, provided he escape the first dangers of the accident. The other functions of the body are more or less disordered, but in very different degrees, and are scarcely similar in two patients. This variety depends upon the different susceptibility of individuals, which necessarily renders all the accidental or secondary symptoms of a local inflammation extremely uncertain and variable, nor can they be described except in general terms, and as in nowise necessary to characterize the affection. The symptoms of the original disease causing the pneumothorax, in great part remain, but are in some degree modified by it; thus the cough and expectoration diminish when perforation supervenes, for the difficulty of breathing and pain prevent a full expiration, which is necessary to a complete cough; the cough which is proper to pneumothorax is even shorter and drier than that of pleurisy, for the respiration is less complete and more painful. Of course no expectoration can arise from the pneumothorax, if there be any; it must depend upon accompanying disease of the lungs or bronchial tubes.

Diagnosis and Prognosis.—The diagnosis of pneumothorax, since the discovery of physical exploration, is amongst the most certain of those of diseases of the chest, for in a lesion of this kind the physical signs are pathognomonic; but without them, the lesion may be suspected, but cannot be certainly recognised or distinguished from acute pleurisy. Physical exploration goes much farther than the mere recognition of the disease; it points out its different degrees and stages, and the gradual passage of it into empyema. The prognosis is more uncertain; in the large majority of cases it is unfavourable, and speedily fatal; but this

rapid termination depends less on the lesion itself than upon the disease which has given rise to it, or on the combined influence of the two; If, for instance, one lung be almost unfitted for respiration, and the perforation happen in that which is comparatively healthy, respiration is almost interrupted, for both lungs are rendered nearly useless, and the patient dies in a few hours or days from exhaustion and orthopnoea: hence the condition of the lung which is not the seat of the perforation has much influence upon the prognosis. If the patient does not labour under any immediate danger from the interruption to the respiration, the prognosis is still almost necessarily fatal if the phthisis be at all advanced; but if it be confined to a few scattered tubercles, it has little influence upon the course of the pneumothorax, which seems rather to retard than hasten the progress of tubercles. If the disease assume the latter form and arise merely from the accidental rupture of a small tubercle into the pleuræ, the prognosis is for the present much less unfavourable, but after the pleura is completely filled with pus instead of air, the patient still incurs the risk of a severe empyema, and, of course, under the best of circumstances, the prospects of ultimate recovery are doubtful.

Duration and Termination.—The duration of pneumothorax is not fixed. It may terminate fatally in a short period; in one case I witnessed a fatal termination in less than an hour, or it may last many months; in two cases I found the fatal termination not to occur until the lapse of fifteen and eighteen months; in the latter of these cases, the patient made two long voyages, and did full duty as a seaman. It is in this variety that the lesion is followed by empyema, and the possibility at least of recovery must be admitted.

Treatment.—The treatment of perforation of the pleura is extremely limited. The indications are to subdue the secondary inflammation, or rather to keep it within moderate bounds, and to relieve the pain. But as the patient is already much debilitated by previous disease, there is little to be done in the way of active treatment. Bleeding is quite inadmissible, but an occasional application of cups may be allowed, although with great reserve, and only in those cases in which the inflammatory excitement is very high. Blisters are much more

frequently of benefit; in fact, they are the most certain remedies for checking the inflammatory action, and often relieve the pain; they should be applied to the affected side, near the seat of pain, which does not correspond in most cases with that of perforation. Besides blisters, the only remedy which promises much is an opiate; especially Dover's powders, given in doses sufficient to tranquillize the agitation of the patient; and if not to secure sound sleep, at least to relieve the incessant restlessness and suffering. This treatment I have long pursued in cases of pneumothorax, and it is nearly similar if not altogether identical with that recommended by Dr. Graves for the treatment of intestinal perforation in typhoid fever. The opiate should be continued for some days in a full dose, and in diminished quantity during the greater portion of the cases, discontinuing its employment when the oppression increases, or the digestive powers become much enfeebled.

The proper anti-phlogistic treatment of pleurisy is scarcely adapted to cases of pneumothorax; for as the cause is a permanent and mechanical one, it cannot be removed by antiphlogistic or alterative remedies, and, therefore, the progress of the secondary pleurisy cannot be retarded; the effect should be modified and the empyema, which is almost necessary to the cure of pneumothorax, should afterwards, if possible, be brought to a favourable issue.

The operation of paracentesis is sometimes allowable in two different stages of the disorder; to favour the escape of the gas, or the pus which is afterwards secreted. Immediately after the perforation the dyspnoea may suddenly become so great that immediate death is to be feared; the side may then be punctured in the usual way, and the gas be allowed to escape; but as in this case, the subsequent dangers of the disease are certainly increased by exposing the cavity of the pleura so freely to the air, the operation cannot be justified except it be a measure of absolute necessity; at best, it relieves the patient only for a short time. In the cases of advanced empyema which follow pneumothorax, paracentesis may be performed where the oppression is extreme, and the intercostal spaces are much bulged out. The operation is, however, very far from being devoid of danger, for the free entrance of the air into the cavity tends to increase the inflammation, and to

aggravate the hectic fever. The usual precautions should be carefully attended to after the operation.

ORIGINAL COMMUNICATION.

REMARKS ON THE YELLOW FEVER.

BY A. W. UPSHUR, M. D.

(Concluded from page 279.)

To the Editors of the Medical Examiner.

THE memoir of Dr. Potter, to which we have previously alluded, affords abundant evidence that yellow fever often appears in situations in which there is no possibility of its having been produced by the presence of the sick.

Mr. Ellicott, in his journal, (of a voyage down the Ohio in November, 1796,) is so explicit and intelligent on this subject, that no reasoning can shake his statement. His words are these: "I arrived at Gallipolis at eleven o'clock in the morning. This village is a few miles below the great Kenhaway, on the west side of the Ohio river, situated on a high bank; it is inhabited by a number of miserable French families, many of which, this season, fell victims to the yellow fever. The mortal cases were generally attended with black vomit. This disease certainly originated in the town, and, in all probability, from the filthiness of inhabitants, added to an unusual quantity of animal and vegetable putrefaction in a number of small ponds and marshes within the village. The fever could not have been taken from the Atlantic States, as my boat was the first that descended the river after the fall of the waters in the spring; neither could it have been carried from New Orleans, as there is no communication, at that season of the year, from the latter to the former place; moreover, the distance is so great, that a boat would not have time to ascend the river, after the disorder appeared that year in New Orleans, before the winter would set in."

Dr. Potter received a more particular account of the same fever from Major Prior of the army, who witnessed the rise and progress of the disease which is given above. Some particulars, not there mentioned, are stated here. The sick generally died with the black vomit; they were often yellow before death, and almost always afterwards. As some decisive measures became necessary to save the rest of the troops, a ditch was cut; what little water remained was conveyed off, and the whole surface covered with fresh earth. Not a man was seized with the worst form of the disease after the work was finished; and the sick were not a little benefitted, for they generally recovered, (though slowly,) because the fever became a common remittent, or gradually assumed the intermitting form. Frost put a stop to the fever in every form.

The following is equally explicit as to the

indigenous origin of yellow fever. At a village called New Design, fifteen miles from the Mississippi, and twenty from St. Louis, containing about forty houses, and two hundred inhabitants, in the summer and autumn of 1797, the yellow fever destroyed fifty-seven of the inhabitants, or more than one-fourth. No person had arrived at this village from any part of the country where the disease had prevailed, for more than twelve months preceding its appearance. Dr. Watkins resided in the village at the time, and, having seen the disease in Philadelphia, testifies to the facts. Dr. Potter also mentions some cases of yellow fever which occurred in a house near Baltimore, in September, at a time when that city and the adjacent country were remarkably healthy. Struck with the circumstance he examined the premises narrowly, and discovered *that the cellar contained water, which had remained there from the first week in June, the country having been then inundated with rain. The cellar being useless, was closed, and the only vent for the gas arising from it was through the floor, which was open in several places. At his solicitation, the survivors were removed, and convalesced from that time.* The tragedy, however, did not terminate here. The owners of the house, anxious to retrieve its character, hired two men to empty the cellar. This labour was performed in one day, by ripping up the floor and drawing off the water by means of a pump. In a few days after they both sickened and died with the usual symptoms of yellow fever. The same writer says, during the embargo in 1808, when no foreign sail whitened our waters, in August the yellow fever commenced its ravages at Fell's Point.

The commission named by the Academy of Sciences in Paris, to decree the prizes on medicine and surgery, established by M. Montyon, awarded that of ten thousand francs to Dr. Chervin for his researches on yellow fever. The following extract is from their report. In the year 1814, Dr. Chervin began his researches at Guadaloupe, and, not content with visiting every patient with yellow fever that he had access to, he made autopsical examinations on more than five hundred bodies in fifteen months, at Point-a-Petre; but this was not enough to satisfy him. He continued his researches in America for eight years, visiting every place in which the yellow fever appeared, traversing, in this time, not less than thirty thousand leagues. On his return to Europe, the fever was raging in Spain, and he immediately repaired to that country, and visited every place infected with the disease: the result of all his observations go to prove that yellow fever is not contagious; and this opinion is strengthened by the opinions of five hundred out of six hundred and thirty American and Spanish physicians, whose answers to his questions he is now in possession of.

The following experiments are strong evi-

dences in favour of the non-contagious character of this disease. M. Guyon took the shirt of a patient, who had just died of the fever, and put it on *whilst it was still soaked with sweat; at the same time he was inoculated with the yellowish matter from blisters*, which the patient had had shortly before his death. *He wore the shirt for twenty-four hours*, during which time he was constantly observed by medical witnesses. Two days afterwards *he drank about two ounces of black fluid vomited by a patient who died on the following day. Another portion of the same fluid was rubbed into his arms, and he was also inoculated with it. Immediately after the death of the second patient, he put on his shirt also, which was much stained with black fluid, and lay in his bed, where he remained six hours and a half. He then opened the body of the first patient, whose stomach was found filled with black fluid, inflamed, and with the mucous membrane ulcerated; he was again inoculated with the black matter, and pieces of the stomach were applied over the wounds*, which, after twenty-four hours, were found inflamed and very painful. *After three days, these symptoms having disappeared, M. Guyon was perfectly well.* All these experiments were made in presence of medical officers of the station, and Lieut. General Daugelet, governor of Martinique, vouches for their authenticity.

This disease has even been produced at sea, in circumstances in which there was not the slightest ground to doubt its generation on board the ship. The United States ship of war, General Green, sailed from Newport, in Rhode Island, on the third of June, 1799. At sea the yellow fever broke out. The fever did not exist at Newport previous to her departure. That town is too far north for the appearance of the yellow fever, except in very hot summers, or so soon in the year, in the hottest. The ship touched no where, and had no communication with any vessel, until she arrived at Havana, after the appearance of the disease. The Burbridge, Indiaman, sailed from England for Madras and Bengal on the fifteenth of April, 1792. On the 26th of May she crossed the line twenty-six degrees west longitude. The mercury ranged from eighty to eighty-six. The weather was extremely sultry, with frequent rains. In this state of things the yellow fever broke out, although she had touched at no port, nor had communication with any vessel.

The following cases were related to me by an officer of the United States Navy, who witnessed them on board a ship to which he was then attached. In the year 1822, an American sloop of war sailed from the United States on a cruise to the West Indies and Gulf of Mexico; she passed the winter at different ports near the head of the Gulf of Mexico. In the following spring the ship was ordered to Tampico to receive on board a number of Americans and others, who had previously been residing in the city of Mexico as state prisoners. On

their release from prison, where they had been half-clothed and badly fed, they marched from the city of Mexico to Tampico, principally on foot, over a broken and rugged country, and under a hot tropical sun; they were consequently much exhausted and emaciated on their arrival at Tampico. They remained about a week in that city, before they embarked, living freely and indulging to excess in the fruits and vegetables of that country. The day following their embarkation, one of them, who was a strong hearty young man, was attacked with severe pain in the head and back; he was questioned by the surgeon of the ship as to what he had been eating, and replied that he had eaten a great deal of green sugar cane, which he thought was the probable cause of his disease. The surgeons pronounced his case to be yellow fever, and treated it accordingly. About eight o'clock on the second night of his attack, he became delirious, calling constantly for cold water, and complaining, in a strain of delirium, that although rivulets were running at his feet, no one would give him a drop. He had been previously removed from the birth-deck, into a cool and airy place under the top-gallant fore-castle. At ten o'clock his cries became so loud and distressing as to attract the attention of the narrator, who was at that time in charge of the deck, and who immediately went forward and gave him about a pint of cold water, the whole of which he drank at a draught. He had scarcely swallowed it before it returned, followed by a quantity of black matter resembling coffee grounds. From that time he continued to drink cold water and to vomit, for the space of four hours, at which time he died a perfect madman, having suffered the most excruciating pain. *He had remained on board the ship for three days, had the disease in its most malignant form, and not an individual took it from him.* The ship sailed from Tampico to Havana, in the island of Cuba. On her passage, of twenty-one days, the crew suffered extremely for want of provisions and water, it being impossible to procure either in Tampico, in consequence of the revolution which was then raging, and the consequent demands for the supply of the army. On her arrival in Havana, about the first of August, with an emaciated and weather beaten crew, it was found that the yellow fever was raging in the city and in the harbour to a frightful extent, thirty-five or forty dying daily on shore, and about an equal proportion of those who were afloat. The sloop of war anchored within two cables length of a Spanish eighty gun ship, on board which the fever had been raging for many weeks. *Official visits were exchanged by the two ships, and the officers of each occasionally visited the other, during the time that the Spanish ship was daily losing from three to five of her crew, and no case of fever occurred on board the sloop of war which could in any way be ascribed to her intercourse with the other ship.*

But a few days previous to the departure of the sloop of war from port, her launch, with eighteen men and two officers, was sent, at sun-rise, some miles up the river for fresh water, and, owing to an accidental detention, did not reach the ship until about 2 o'clock, P.M. The day was excessively hot, and the officers and crew of the launch had fasted all day. On her arrival alongside, at 2 o'clock, P.M., the senior officer came over the gangway, holding one hand on his head and the other to his back, and appeared to be perfectly stupid, saying to the narrator, who met him at the gangway, "report my boat and take me below; my head is bursting, and my back is broken." He was accordingly carried below, laid upon a locker, and immediately became insensible. The surgeon of the ship was at that moment engaged; as soon as practicable, however, he was copiously bled, and forced to take thirty grains of calomel. In half an hour he went to sleep, and slept profoundly until eight o'clock next morning, when two copious and very dark evacuations were produced in quick succession, after which the patient said he felt perfectly well, with the exception of debility; and the next day he was on duty.

Three days thereafter, the narrator was himself attacked precisely in the same way, and from the same cause. The same remedies were promptly administered, and relief speedily obtained. He was also on duty on the third day after his attack. In about ten days thereafter the ship sailed for the United States, and these were the only cases of yellow fever that occurred on board of her during a cruise of nearly a year in the West Indies and Gulf of Mexico; and circumstances plainly show that these did not originate in contagion, else their attendants, and others in the ship, would not have escaped.

It is perhaps needless to add more to the abundant evidence which has already been cited. Suffice it to say, if any dependence is to be placed in the description of yellow fever by the medical gentlemen of cities—if any is to be placed on the decisions of the physicians of the country, founded on a comparison of cases occurring in their practice with these descriptions, and the occasional advantage of seeing for themselves on their visits to the sea-ports—fevers occasionally occur with the symptoms of yellow fever, including the black vomit, in situations in which it is impossible to believe the disease did not originate on the spot. We have, then, unquestionable evidence that the yellow fever often is, and may at any time be produced in certain circumstances, without the presence of persons previously affected. Again: When the sick are carried out of these circumstances, or removed beyond the influence of the cause generated in them, no person who approaches them will be affected.

This position is fully established by many instances, in which, when the sick are brought

out of situations favourable to the spread of the disease, into a pure atmosphere, the disease is not propagated, no one in the pure air being affected by the presence of the sick. Experience has long since shown that this disease, when carried from a city into the pure air of a neighboring village, does not spread; *nay, that in the very city in which its fatal ravages are felt, there are parts in which, if a sick person be carried into them, the disease will not spread.*

We find, therefore, that yellow fever does not possess the characteristics of a contagious disease: viz., that of affecting a person but once, and that of spreading until it becomes universal, even in circumstances favourable to its extension unless stopped by insulating the sick. Moreover, great numbers placed near the sick, attending on them, escape entirely; it is produced in certain circumstances wherever they occur, without the presence of any person previously affected; and when the sick are carried out of these circumstances, no person who approaches them will be affected. We must, therefore, conclude that the yellow fever is not propagated by a volatile contagion.

In opposition to a conclusion resting on such strong grounds, the doctrine of the contagious nature of yellow fever rests solely on the appearance of the disease after a sick person has been introduced into a town, and on the rapid spreading of the disease. As to the first, it has been shown that the disease has originated in certain circumstances without the introduction of the sick. Therefore there is a cause, independent of a communication with them, or of contagion derived from them; and that this cause is a gas, produced in such circumstances, is evident from the effect of exposure to a wind blowing over the places in which those circumstances exist, as well as from the effect of cutting off the source of it by draining, filling up, inundating, &c. It is also well known that this disease very often does not follow the introduction of the sick, and, therefore, such introduction is not alone sufficient to produce it. It is further known, that it never *spreads* after the introduction of the sick into a town, unless the town be very filthy, and the temperature be very high. These are the very circumstances in which the disease has been shown to have originated; consequently the *gas* produced in these circumstances is the *cause*, and the introduction of the sick is not.

There is nothing in this circumstance to indicate the *nature* of the cause; all that we can infer is, that the cause is extensive in its operation. The gas which arises in the circumstances in which this disease always appears, is capable of being applied to any number of persons at one moment; nay, if they be in the direction of the wind blowing over the spot in which these circumstances exist, and there be no obstruction, it cannot be avoided. It is, therefore, better applied to the rapid production

of the disease than contagion; any contagion, ascertained to exist, being incapable, as is well known, of affecting a person at the distance of twenty feet. The former, indeed, is capable of the rapid production of the disease, and contagion is not. There is evidently, therefore, no foundation for the doctrine in either of these circumstances; nothing to produce a doubt of the correctness of the conclusion that the disease is not contagious.

The yellow fever appears in those places noted for the appearance of ordinary bilious fever, and, we have fully shown, is produced by the same cause, viz., *miasmata*. It is more violent than the ordinary fever, and it appears only when the causes of ordinary fever are present in great force. Before the cause has acquired that degree of force necessary to the production of yellow fever, bilious fever is common. It gradually becomes more and more violent, as the weather becomes more and more favourable to the production of the common cause. The nature of the fever becomes the subject of warm contention; some declaring it to be yellow fever, others asserting it to be only the ordinary fever, rendered more violent by the increased heat of the weather; at length all admit the yellow fever to exist.

Even after this is universally admitted, at a little distance from the chief sources of the miasmata, in the higher parts of the city, cases of the ordinary bilious fever are common; nay, it is impossible to decide, in the first hours of an attack, whether the disease is the ordinary bilious fever, or will turn out to be yellow fever; many cases of the latter ending in the former, after a violent commencement, and many pronounced ordinary bilious fever terminating with all the symptoms of malignant yellow fever. Not only do both exist at one time, under the operation of one cause, in different parts of the same city, but of those in the very middle of the most sickly part, some have only the ordinary fever. Finally, throughout the whole course of the epidemic, warm disputes often occur respecting the nature of particular cases; *plainly showing the impossibility of drawing any intelligible distinction between them.*

In the country, as in cities, where the circumstances productive of the cause of bilious fever are in great force, the fever becomes malignant, and cases often occur not to be distinguished from the yellow fever. And there is no symptom of yellow fever that does not occasionally occur in the neighbourhood of marshes, ponds, and rivers. In fine, bad cases of bilious fever may, by mismanagement, be made to assume all the symptoms of yellow fever; and yellow fever, by judicious treatment, assumes, on the road to health, the symptoms of the ordinary bilious intermittent.

We have, therefore, as good reasons for believing that yellow and bilious fevers are one, as that remittent and intermittent fevers are so.

DOMESTIC.

INTERMENTS in the City and Liberties of Philadelphia, from the 22d to the 29th of May, 1841.

Diseases.	Adults.	Children.	Diseases.	Adults.	Children.
Apoplexy,	1	0	Brought forward,	34	45
Cancer of womb,	1	0	Marasmus,	0	2
Casualty,	0	1	Malformation,	0	1
Croup,	0	1	Measles,	1	5
Congestion of brain,	2	0	Mortification of stomach,	0	1
Childbed,	1	0	Mania a potu,	1	0
Consumption of the lungs,	12	3	Old age,	1	0
Convulsions,	1	3	Palsy,	2	0
Dropsy,	3	1	Pleuropneumonia,	3	0
— head,	0	4	Puerperal mania,	1	0
— breast,	1	0	Scrofula,	0	4
Disease of brain,	0	1	Small pox,	1	3
— spine,	0	1	Still-born,	0	8
— liver,	1	0	Suicide,	1	0
— stomach,	1	0	Unknown,	1	1
Drowned,	0	3	Total,	116	46 70
Dysentery,	1	1			
Debility,	0	3	Of the above, there were under 1 year	33	
Erysipelas,	0	2	From 1 to 2	13	
Enlargement of liver,	0	1	2 to 5	7	
Fever,	1	0	5 to 10	8	
— remittent,	0	1	10 to 15	3	
— nervous	1	0	15 to 20	6	
Inflammation of the brain,	1	6	20 to 30	15	
— bronchi,	1	2	30 to 40	12	
— lungs,	1	5	40 to 50	7	
— stomach,	1	0	50 to 60	7	
— bowels,	1	3	60 to 70	1	
— larynx,	0	1	70 to 80	4	
— breast,	0	1	80 to 90	0	
— peritonæum,	2	0	90 to 100	0	
Inanition,	0	1	Total,	116	
			Carried forward,	34	45

Of the above there were 8 from the almshouse, 20 people of colour, and one from the country, which are included in the total amount.

FOREIGN.

History of the last illness of Sir A. P. Cooper, Bart., and examination of the body after death. For many months previous to his last illness, Sir Astley Cooper had occasionally experienced great dyspnoea, upon the slightest exertion; and it had been observed by his friends that the peculiarity of his complexion bespoke some serious impediment to the circulation. It was not, however, till about six weeks before his death that he found difficulty in assuming the recumbent posture; and at about that time he began to pass the greater part of his nights in the arm-chair, rather than attempt to lie down. He

still continued to see a few patients during the day, both at home and at their own houses. He now became the subject of frequent cough; which was immediately brought on, if he attempted to recline. The gout, of which he had for several years experienced periodical attacks, showed itself imperfectly in the fore-finger of the left hand; and his legs began to swell, owing to the depending position in which they constantly remained.

During all this time he refused medical aid; and it was not till the 22d of January that he consented to see any one, to whom he might state his symptoms. At the time he was first visited, he was sitting in his chair, with his body inclined forward, and his chin nearly resting on his chest; the pulse accelerated; not the slightest *bruit* nor abnormal sound in the heart, though the beat was extensive, and heard quite to the right side of the chest. The lungs afforded considerable bronchial rattle, but were neither consolidated nor compressed, and filled both cavities of the chest.

Although remedies appeared more than once to produce a temporary remission of his symptoms, and a further attack of gout in one foot seemed to afford some relief to the chest, yet, upon the whole, the disease advanced, and was attended by frightful fits of dyspnoea, during which his face was purple and his mind confused; and it was in one of these paroxysms that he died, on the morning of the 12th of February.

Shortly before his death, Sir Astley Cooper expressed a wish that the appearances which should be presented on the inspection of his body might be recorded in the Guy's Hospital Reports. He had particularly alluded to four points, the investigation of which he thought desirable;—a cured oblique inguinal hernia; a cured umbilical hernia; some suspected indications of phthisis in his youth; and an inability to sleep whilst lying on his left side.

Examination of the body of Sir Astley P. Cooper, Bart., in the 73d year of his age, on February 13th, 1841, at 9 o'clock in the evening, 32 hours after death, by Mr. John Hilton, in the presence of Dr. Chambers, Dr. Bright, Mr. C. A. Key, and Mr. Edward Cock.

The weather was warm and damp: there were slight cadaverous indications, from gravitation towards the posterior part of the corpse: the face and anterior surface of the body exsanguine: there was a general and extensive œdema of the lower extremities; but no evidence of serous infiltration in the arms, nor in any other part of the surface of the body.

The head was not examined.

A globular projection, about the size of a large nut, was found at the umbilicus; which receded on pressure, leaving a well defined rounded aperture in the linea alba, capable of

admitting the end of the little finger. This protrusion consisted of a few congregated lobes of fat placed immediately behind the umbilicus, between it and the peritoneum, the free surface of which was corrugated, and presented a puckered appearance, most probably inflammatory, and the result of the artificial curative means which had been employed for a long period during life.*

The anterior, thoracic, and abdominal parietes were covered with a layer of fat, about an inch in thickness, soft, and oleaginous. The muscular tissue exposed during the inspection was pale, soft, and flabby: indeed, the latter expression is applicable to nearly all the tissues. No gaseous or fluid effusion was found in the cavity of the peritoneum: the greater omentum, loaded with adipose matter, was contracted, and did not extend downwards more than two inches from the transverse colon. Some very old membranous adhesions existed between the right angle of the colon and the gall-bladder: cadaveric transudation of the bile from this viscus had slightly tinged the surrounding parts.

The viscera occupied their natural positions; excepting the cœcum, which was completely invested by the peritoneum, and hence less fixed than usual.

The liver healthy in form: some parts of its surface were slightly contracted and uneven; and sections of it presented hepatic venous congestion, approaching what is termed a "nutmeg appearance."

The gall-bladder was small; and contained a moderate quantity of healthy bile, which, upon gentle pressure, passed rapidly into the duodenum.

The spleen was rather larger than natural, its capsule a little opaque, and the interior of the organ very firm; a section presenting a smooth solid surface of a purplish gray colour.

The stomach was large, and distended with gas; the cardiac extremity stained brown by cadaveric transudation, or the action of the gastric fluid upon the blood: its tissues appeared quite healthy.

The small intestines presented nothing abnormal: nor was there any thing remarkable in the large intestines, excepting the dilated condition of the cœcum, the parietes of which were thin; its mucous membrane congested.

The pancreas was healthy.

The kidneys were surrounded by a considerable quantity of adipose tissue, remarkably dense, and very firmly adherent to the fibrous capsule of the gland. Both kidneys were much congested with blood, rather larger than

* Sir Astley Cooper wore a piece of cork adapted to the umbilicus; and maintained in its place by straps of adhesive plaster, during many years, and until his fatal illness.

natural, their surfaces mottled, and slightly granular. These morbid conditions were the most evident at the lower part of the left kidney; less advanced but more generally diffused, in the right: and on the anterior surface of the latter, near its convex edge, were found two small cysts, containing a straw-coloured fluid.

The supra-renal capsules were healthy.

The urinary bladder was healthy and contracted, and contained about two drachms of whitish turbid urine.

The internal abdominal ring, on the left side, was rendered distinct by a tubular extension of the peritoneum for about an inch into the inguinal canal.

A depression existed in a corresponding situation on the right side, the bottom of which was firm, irregular, and corrugated; and upon very careful examination, a minute serous canal, not more than a line in breadth when opened, was traced extending from it, along the spermatic cord, into the cavity of the tunica vaginalis, being the remains of a congenital inguinal hernia.*

Upon raising the sternum and cartilages of the ribs, both lungs were brought into view; and retained their expanded condition, overlapping the pericardium, and manifesting no disposition to collapse. No pleuritic adhesions existed on either side of the chest; nor was there any effusion, except into the right pleural cavity, which contained about three ounces of sanguinolent rather turbid serum.

A little recent pleuritis was found on the middle lobe of the right lung, rendering it slightly adherent by plastic effusion to the adjoining limbs to a small extent. Both lungs presented general vesicular emphysema to a very great degree, and their edges were more rounded than natural.

The larynx was not examined.

The lining membrane of the trachea and larger bronchi was smooth, but of a dark purple hue, from congestion in the minute blood-vessels: the same appearances extended throughout the bronchial ramifications, the smaller of which were filled with a very tenacious puriform mucus; and many of them were observed much dilated. Both lungs were extremely congested with dark blood, especially in and near the central portions of their lobes. At the superior and posterior part of the right lung was a small depressed and somewhat contracted surface, about the extent of a sixpence; a section of which exposed a calcareous mass, very uneven upon its surface, and about equal to the size of a small pea: it was placed about three lines distant from the pleura.

When the pericardium was opened, the heart

* Sir Astley Cooper wore a truss on the right inguinal canal, from the age of nineteen to twenty-five.

was seen, very large and distended; and about two ounces of rather dark or brown-coloured slightly turbid serum occupied the posterior part of the cavity.

The right auricle and ventricle filled with very dark-coloured imperfectly-coagulated blood. The auriculo-ventricular valves sound. Through one of the pulmonary valves, near its angle of union with an adjoining valve, was a perforation nearly the size of a small goose-quill. A tolerably firm fibrinous coagulum was found in the pulmonary artery and its branches, extending, by minute prolongations, to the fifth divisions; these were made evident, by withdrawing them in a continuous mass with the forceps.

The left auricle and ventricle were occupied by a large quantity of black grumous half-liquid blood. A large portion of the mitral valve opaque, and a little thickened; otherwise healthy. The aortic valves thickened, and rather rigid at their attached margins: whilst the free margins presented a remarkably healthy appearance for their age.

The left ventricle was much dilated; its apex much broader, and more prolonged than natural: the parietes somewhat hypertrophied; and the muscular fibres of the whole organ were pale, flabby, and weak.

The aorta, which was small and narrow, pursued its usual course, but gave off the left vertebral artery between the left common carotid and left subclavian. The entrance to the arteria innominata was contracted, and slightly irregular.

Many small irregular yellowish opaque patches were seen under the lining membrane of the thoracic aorta and the ascending portion of the left subclavian artery. In most of the parts so affected, the internal membrane was much softened, breaking down under slight pressure: at three or four points it was destroyed to a small extent, admitting a thin layer of dark matter, probably altered blood, separating it in a slight degree from the subjacent tissue: this latter state was noticed near the origin of the arteria innominata and the commencement of the descending aorta. The whole length of the abdominal aorta was full of black grumous blood; its parietes thickened; the lining membrane opaque, and raised by the sub-deposition of hard, almost bony matter.—*From Guy's Hospital Reports, in London Med. Gazette.*

On the History of the Employment of Cinchona Bark in the treatment of Acute Rheumatism. By DAVID D. DAVIS, M. D., Professor of Midwifery in University College, London.—On perusal of my late communication on acute rheumatism, it possibly occurred to the reader that I considered the merit and originality of prescribing bark as a remedy for that malady as due to the late Dr. Haygarth, of Bath, who had, indeed, previously resided at Ches-

ter for several years. A statement corrective of such an inference seems necessary to do justice to the almost unequalled candour and modest unpretentious merit of that excellent writer. As the practice may appear altogether a modern novelty to the greater part of the profession of the present day, a brief account of its adoption by Dr. Haygarth, and of the singular manner in which he became himself acquainted with it, cannot fail to prove interesting to many readers of the *Lancet*. Dr. Haygarth shall give that account in his own words: "For several years after the period when I commenced the practice of physic at Chester, that excellent physician, the late Dr. John Fothergill, used annually to retire from the fatigues of his profession during about two months in the summer to Lea-Hall, in Cheshire. In this pleasing rural retreat, I had frequently opportunities of enjoying his very improving and entertaining conversation. He allowed me the very important privilege of stating to him the doubts and difficulties which often perplexed me as a young physician.

"With a truly liberal and enlightened mind, he frequently communicated to me his opinion and advice whenever he was thus consulted.—In one of these friendly visits, I solicited his counsel for a patient ill of rheumatic fever. He recommended that the Peruvian bark should be administered. At this advice I expressed great surprise, observing that it was directly contrary to the mode of treatment which I had been taught by the most judicious and learned authors and professors, and that I had always understood the bark to be highly improper in all inflammatory disorders. To my objections he replied,—'When I was a young physician, in consequence of being twice called out of my bed to visit patients on a frosty night, I caught a very severe rheumatic fever. By the advice of my medical brethren, I had been bled repeatedly, and largely, even to seventy ounces. My disease remained unsubdued, and my blood still exhibited an inflammatory crust; hence I was convinced that the method of curing this fever by such copious evacuations was erroneous: soon after my recovery I was desired to visit a patient ill of an acute rheumatism.

"At my request, Sir Edward Hulse, at that time the most eminent physician in London, was consulted. He proposed that we should order the Peruvian bark. I gladly agreed to the proposal, as I thought there were several analogies between an ague and a rheumatic fever; in both diseases the urine lets fall a similar lateritious sediment; in intermittent, as well as rheumatic fevers, the blood, when drawn, is covered with an inflammatory crust; the pain and fever of rheumatism have certain periodical, although not quite regular paroxysms, and intermissions. In this consultation with Sir Edward Hulse, the bark was given with such manifest advantage, that I have ever since

adopted the practice, and I recommend it to you in spite of all medical authorities to the contrary.'"

To inquire into the origin and practice of giving bark in acute rheumatism, would be curious and instructive. In Dr. Richard Morton's "*Treatise on Fevers*," that learned author describes the proteiform nature of agues. After explaining that the poison of intermittent fevers was often the cause of hemiplegia and apoplexy, he says, "I have a hundred times observed that the colic of the stomach and of the intestines—that the acutest spasmodic pleurisy—that general and local rheumatism—that scarlet and erysipelatous fevers, with the strongest pathognomonic symptoms, were produced by this poison; these symptoms returned at stated periods; the urine was like what is voided in intermittents; and these fevers, either spontaneously or by remedies, drop their mask, when I cure them soon, constantly and happily, by cinchona."

The accuracy of a part of this reasoning may perhaps be questionable; nor does the whole of it necessarily belong to our present subject. An useful discovery may sometimes result from an erroneous theory. In illustration of this point, Dr. Haygarth appositely enough quotes the following case, from Morton's work already referred to, vol. i., p. 249:—

"A dyer, in Whitecross street, was attacked with an almost universal rheumatic pain, wandering through all his limbs. After he had been frequently thrown into a syncope, and his life had been despaired of from the violence of his spasmodic pains, I was at length consulted. When I had observed that his urine was of a deep red colour, and upon exposure to the air that it deposited a lateritious sediment, and was informed by his attendants that his pains increased at stated periods every day, or every other day, and that the exacerbations were accompanied with the greatest anxiety, I announced that these painful spasms originated from the poison of intermittent fevers; wherefore I ordered twelve ounces of blood to be taken from the arm to relieve the present pain; and, after an interval of six hours, I ordered an antimonial emetic. By these remedies the spasms were soon relieved; but that I might perfectly cure the disorder, I ordered a drachm of bark, with a few drops of laudanum, to be given every third or fourth hour. By these means I intended to destroy the morbid poison, lest the spirits again irritated should excite a new paroxysm. After he had taken an ounce and a half of fresh, good bark, he was immediately relieved, without any other remedy, from the rheumatic fever and spasms. The natural urine and appetite returned, and the patient was restored to health. In a fortnight after, the energy of the bark had begun to fail: he again suffered a relapse of the rheumatism, which, after being bled, was cured with equal facility by the bark, without the aid of any

other remedy, as happens to those who are afflicted with a relapse of an intermittent fever." "Thus," observes Dr. Haygarth, "I was much delighted to discover by what traditional authority this practice had been transmitted from one physician to another, as clearly appears from the following history:—In Morton's 'Treatise on Fevers,' and the chapter above quoted, the twentieth case is entitled, 'An Ague, long concealed under the mask of a pain of the breast, which was, in reality, rheumatic.' The symptoms and remedies of this case are so various, that it would be tedious to read them all. In this manner, he adds, by trusting to false principles, I had brought my patient almost to the jaws of death, being worn down by her fever, watchfulness, delirium, and pain, until the fever, coming every day at stated periods, betraying its type and nature, I suspected that the lurking febrile poison was the cause of this most painful symptom. Wherefore, with the consent of my celebrated colleague, Dr. Hulse, who was called into consultation with me on this case, I ordered blood again to be taken from her arm on the 3d of April, 1690, to diminish the violent efforts of the spirits, which I thought were the cause of the pain; and to destroy the febrile poison, twelve drachms of the Peruvian bark, mixed with an equal quantity of white sugar, were divided into doses of two drachms each, to be taken every four hours. A cordial julep was occasionally given. On the fifth day after these remedies had been administered, far beyond the hopes of her friends and my own, I beheld our patient without fever, cheerful, lively, sleeping placidly, nearly quite free from pain, and all other complaints." In this manner, observes Dr. Haygarth, I discovered, very highly to my satisfaction, by what traditional authority, supported by experience, in spite of the powerful influence of a contrary hypothesis, the benefit to be derived from the Peruvian bark, in acute rheumatism, had been preserved from oblivion by three physicians of uncommon abilities,—Morton, Hulse, and Fothergill. It may not be improper to remark, that this tradition seems to have had, as might be expected, more influence in London than in any other place. Sir John Pringle, in his observations on the Diseases of the Army, p. 166, says, some physicians have ventured to give the bark in acute rheumatism after plentiful bleeding, and as soon as a sediment appeared in the water, although some degree of fever might remain, and the pains might still be considerable. I have had some success myself in giving it thus early, but I have not seen a sufficient number of cases to enable me to recommend the practice to others.

The first cases of rheumatic fever in which Dr. Haygarth prescribed the Peruvian bark, on the recommendation of Dr. Fothergill, occurred in 1769. The favourable opinion which I entertained of this singular practice, received on such respectable authority, was soon confirmed

by my own experience of its efficacy. At the date of publication of Dr. Haygarth's "Clinical History of Acute Rheumatism," he observes, that during the long period which had elapsed since his adoption of the practice, amounting to five-and-thirty years, he had never lost an opportunity of prescribing the Peruvian bark, which appeared to him proper for its use; but always, at first, with great caution, and after sufficient evacuations from the blood-vessels, stomach, bowels, and the skin. Taught by attentive observation and successful experience, he gradually employed this great remedy with more and more freedom, and it was attended with still more manifest proofs of its safety and efficacy. Dr. Haygarth exhibited the bark in all cases of acute rheumatism. In thirty-five cases out of sixty-six, the bark was given during the first fortnight of the disease, from the first to the fifteenth day inclusive of the fever; in eighteen cases, during the next month, being from the sixteenth to the fortieth day of the disease. As to the remaining eleven cases, they may rather be reckoned complaints, in consequence of acute rheumatism, than examples of the disease itself. Out of eighty-four cases, which we find recorded in Dr. Haygarth's tables, the bark was ordered on the first day of the physician's visit; although this must not be too rigidly construed, as cases now and then occurred where the exhibition of the remedy was delayed until the next, or some early subsequent day. In a few of the cases, the bark was ordered at the commencement, without any preparatory measures, although in the great majority of cases a sufficient number of evacuations had been previously obtained by antimony. The form and dose in which the Peruvian bark was exhibited, are fully explained in Dr. Haygarth's first table, whence it appears that the powder was given in eighty-two cases, the decoction in thirty, and the tincture in nine cases.

The powder was exhibited in doses of between five and sixty grains, and the repetition of the quantity prescribed was ordered, from once in two to once in twelve hours. But the most common dose was from ten to thirty grains, and the usual time of repeating it was from the third to the eighth hour. The decoction of bark was given, from between the dose of an ounce, and an ounce and a half, up to two ounces every second, fourth, sixth, or eighth hour. The tincture of bark was ordered in nine cases; but, I believe, never until both the fever and inflammation were gone, or much abated.

Physicians have observed that acute rheumatism is scarcely ever a fatal disease. This observation may be true, and is confirmed by my own experience; whilst it remains in its proper seat, the muscles and joints, and when not combined with other mortal maladies; but out of one hundred and seventy cases which occurred in the practice of Dr. Haygarth, dur-

ing a period of five-and-thirty years, he met with twelve which had a fatal termination, either by a translation of the inflammation to the brain, lungs, kidneys, stomach, or some other vital part, has been found in combination with other diseases. In the second section of Dr. Haygarth's "Clinical History," consisting principally of illustrative matter, a full statement of all the unfavorable cases is especially detailed. As the principal purpose of the history was to ascertain how far the Peruvian bark should be considered a safe and salutary remedy in acute rheumatism, the author showed the utmost solicitude to inquire, with all possible accuracy, how far the fatal cases related in the second section should excite any doubt relative to this question. Of the twelve patients who actually died of the disease, it is a fact of obvious importance, that only four died of acute rheumatism. Moreover, in case No. 68, the patient died, not probably of acute rheumatism, but of typhus fever of a bad type, complicated with aphthæ on the tongue and throat; besides, she only took the bark for four days, and had ceased to use it altogether for thirteen days before her death, not because it disagreed, but because it had no salutary effect.

In case No. 125, a suppression of urine was plainly the cause of the death. How far this disease might be connected with rheumatism seems very doubtful; the two disorders were probably independent of each other. The suppression of urine, there was reason to believe, had been brought on by habitual drunkenness with spirits. It is of importance to remark, that neither in this nor in any of the three other fatal cases, was there any inflammatory swelling of the joints when the bark was given; that it had receded in one, and had never appeared in the other two cases. Again, all these three patients were in such a state of extreme debility and languor, as to be apprehensive of sinking away into a syncope. With such symptoms, observes Dr. Haygarth, no candid physician would expect any mischievous effects from the bark.

In these circumstances it seemed preferable to all the remedies, although it had not sufficient power to save the patients' lives. According to the prevailing medical ideas on this subject, the greatest mischief should be apprehended from this remedy where the fever was high and the inflammation violent. On the whole, however, after the most rigid scrutiny, it seems manifest that not the slightest probability exists that the bark had disagreed or had aggravated a single symptom in any of the cases alluded to. It is very interesting and instructive to remark, that although the medicine here recommended was exhibited by Dr. Haygarth during the earliest stages of acute rheumatism, it seldom failed to produce very obvious effects in mitigating the symptoms; whereas in the few cases of dangerous complications, the worst symptoms were attributable obviously

rather to such complications than to the remedy prescribed. The treatment which I now venture to recommend, observes Dr. Haygarth, is the result of gradual improvements for a long series of years, as successful experience led me by degrees to further deviation from the remedies usually employed in this disease. With sedulous attention to every circumstance which denotes that a medicine relieves or aggravates a patient's disorder, with a steady purpose to persevere in the former, and to avoid it in the latter circumstances, I have been long taught and thoroughly convinced that all hazard of doing mischief by means of it may be avoided, and yet that as much benefit may be obtained as its salutary qualities can produce.

By strictly following the rules and cautions dictated by the medical experience of others, and of my own, it has so happened that I never did witness, during a period of thirty years, a fatal consequence from any remedy which I had prescribed. So long and so uniform a course of successful experience has given much satisfaction to my own mind, and afforded a highly beneficial confidence in the safety of the practice; it banishes equally the injurious extremes of timidity and temerity; it encourages and warrants the efficacious method of treating diseases without rashness, or apprehensions of doing mischief.

Although directly contrary to the vulgar creed, and even to sceptical opinions maintained by men of knowledge in other sciences, there is no doubt that my accurate and faithful declaration of experience on the subject matter before us, confirmed by that of many other physicians of extensive practice, will have the eventual result of inducing others to adopt the same practice. To those who may be strangers to the author's character, it may be necessary to remark, that he has never been guilty of any professional boastings or exaggerations. It cannot, therefore, be suspected that he should now make such a solemn and public asseveration, were it possible he could entertain the slightest doubt of the correctness of his statement. On a subject of such great importance, he feels it his duty to publish this general remark, conscious confidence of integrity places him above all personal considerations. To him, indeed, it seems most proper that a truth of so much importance should be adequately promulgated. It is not to be expected, however, that even this full and faithful statement of facts will immediately obtain general attention.

Though my respectable friend, Dr. Saunders, has recommended bark for rheumatism for many years, both in his lectures and publications, yet I do not know that it has anywhere received the attention which it justly merits; for even lately I have heard a pupil of Dr. Saunders censured by an intelligent and enlightened physician for prescribing it in this disease. For many years, whenever an opportunity present-

ed itself, whether in correspondence, consultation, or even in casual conversation, I have for myself never ceased to recommend the Peruvian bark as incomparably the best remedy for the treatment of acute rheumatism.

When I first came to reside in London, I found the practice of prescribing bark in acute rheumatism, adopted by a very small number of the elderly physicians of the metropolis, and among these Dr. Saunders was the principal. It was adopted also, I have been credibly informed, by the then senior physicians of St. George's Hospital; but these must be considered as rare exceptions to the rule, for in a few years subsequently, I found my own representations of its value received with coolness, if not with distrust. The fact of its utter neglect in so short a time after its publication by so eminent a man as Dr. Haygarth, has always appeared to me an extraordinary phenomenon in morals. In Dr. Fothergill's time, there can be no doubt that it was frequently prescribed. Since that period, however, we have not often heard of it; and I have even known of public writers who, if I mistake not, have written strongly against its employment. "So loosely," observes one of these writers, "has the term rheumatism been applied, that a host of ailments with no character in common save that of pain have been classed under it, and much both of false experience and of bad practice has thence resulted. Diseases called rheumatic have been relieved by stimulant remedies, which, from the character thus acquired, have been empirically resorted to in states of constitution for which they were utterly unsuited. In acute rheumatism, a disease intensely inflammatory, we have known the use of the most powerful stimulants confidently urged by well-meaning but misguided friends, who in support of their prescription have pleaded the wonderful cures which they had seen their favorite specific perform, in what they assumed to have been rheumatism: thus misled by a name, to recommend in active inflammation what could have benefitted only in a totally opposite state of the system. As many really rheumatic affections present an equivocal character, which to superficial observation too often appears to justify the use of stimulants, it is very necessary to discriminate the real disease, so as to distinguish it from those diseases with which it is liable to be confounded; and however difficult it may be to class the latter, it is better to leave their place in nosology unassigned, than by ranging them under the head of rheumatism, to beget confusion where clearness and precision are of the first importance." This reference, I presume, is intended to apply to Dr. Haygarth's practice, and to its adoption by a few competent practitioners who have seen it employed; if not, I am myself incompetent to guess at its intended application. If, on the contrary, I am correct in my supposition that the writer had the practice of Dr.

Haygarth as the principal object of his remark, I am quite at a loss to account for his extreme arrogance, for who was Dr. Haygarth? He was confessedly one of the first physicians of his age, the friend and correspondent of Currie, Percival, Dobson, Clark, and many other professional writers of equal renown. He received the cinchona practice as delivered to him by Morton, Hulse, and Fothergill; continues it on a large scale of experience, without once feeling diffident of its value, and without incurring at least many examples of its failure for a period of five-and-thirty years, and who during the whole of that period attested its value by the strictest rules of induction. The reader is already acquainted with the manner in which I became impressed by Dr. Haygarth's practice. I beg now to inform him, that I have adopted it during the greater part of my professional life; and as it has seldom happened that I had ever occasion to prescribe it, except at an early period of acute rheumatism, I have great satisfaction in assuring the readers of the *Lancet* that I do not remember a case in which the disease was not happily subdued. I have often recommended it in cases of pure arthritic rheumatism during its acutest stage, and the disease has always yielded to the remedy; and I have also recommended it in violent pains of the joints, accompanied by alarming complications, but never in any one case injuriously to the interests of my patient. I have, therefore, no difficulty in recommending its adoption to my medical brethren, and especially to those who are most frequently favoured with the opportunities of seeing acute rheumatism in its earliest stages. From what I have already written upon the subject, I think it will be considered that its employment should, in every case, be anticipated by free abstraction of blood, as well as by the other important evacuations previously recommended to be resorted to. In a few cases it may be necessary to repeat such bleedings and other evacuations more than once; but I must own, that such a necessity has not often occurred within my experience. I feel myself entitled once more to repeat my confident assertion, that I consider the Peruvian bark the most powerful remedy that can be employed in an incipient case of acute rheumatism. Without exceptions in my practice, it has uniformly produced the most salutary effects. The pains, swellings, perspirations, and other symptoms of inflammatory fever, manifestly and speedily abate, and gradually cease, till health is perfectly restored. Before I conclude, I beg to repeat that the measure of bark which it has been my practice to recommend for the disease under consideration, has varied between a scruple and half a drachm, repeated three or four times daily.

The reader has already seen that the writers of the last and preceding centuries prescribed bark in much larger quantities. Dr. Haygarth states his practice to have been, p. 89 of his

"Clinical History," to order it in much more moderate doses. To sum up the whole in a few words, he observes, after the stomach and bowels have been sufficiently cleansed by antimony, I have, for many years, begun to order the Peruvian bark in doses of grs. x. or xv. every two, three, or four hours; and if this quantity has a salutary effect, it has been gradually increased to grs. xx., xxx., or xl., with sedulous attention never add more than what had perfectly agreed. It has generally been taken in milk, peppermint water, or the decoction of bark.

[*London Lancet.*

Principal circumstances connected with seven cases, in which an Artificial Anus has been established in the adult for the relief of urgent symptoms produced by Stricture of the Rectum.
By W. H. WALSHE, M. D.

[1. FINE (An. ?) *Vid. Odier, Man. de Médecine*, p. 274, ed. 2, 1811.]—Female, æt. 70. Symptoms of gangrene from fecal retention; tumour completely obliterating the rectum at its origin.

Opening made at "most prominent part of the abdomen;" one or two stools daily afterwards; patient lived more than a year, and died dropsical.

[2. PILLORE (1776.) *Vid. L'Expérience*, Janvier 30, 1840.]—Adult male. No stool for upwards of a month; not a particle of two pounds of mercury, which had been exhibited by the mouth, discharged. Eight or nine inches of the end of the colon and beginning of the rectum totally obstructed from schirrhous induration, &c.

Transverse incision of the integuments above the fold of the right groin, and same of the cæcum; abundant fecal evacuation. Peritonitic symptoms on the 20th; death on the 28th day. The bowels had not been completely emptied; the exact original weight of mercury being found in a knuckle of the jejunum, behind the bladder.

[3. FREER (1817.) *Vid. Med. and Phys. Journal*, vol. 45, p. 9, 1821.]—Male, æt. 47. Contraction of gut complete; attempt made to divide the stricture; no stool for ten days, vomiting, hiccup, &c.; "death inevitable."

Incision above and within anterior superior spine of the left ilium, and in descending colon; painful evacuation; patient, however, gradually sank, and died on the ninth day.

[4. PRING (1820.) *Vid. Med. and Phys. Journal*, vol. 45, p. 1, 1821.]—Widow, æt. 64. Obstruction seven inches above the anus; total retention of feces for twelve days.

Incision within and above antero-superior spine of the left ilium, and in descending colon; immediate and forcible discharge of feces. Three months after, indurated feces passed

through the natural anus, and continued to do so. Six months after, the patient was in good health.

[5. MARTLAND (1824.) *Edinb. Med. and Surg. Journ.* p. 271, 1825.]—Male, æt. 44. A large tumour protruding, as it were, from the neck of the bladder; no stool for twenty-six days; marked stercoral tympanites.

Incision an inch above and within antero-superior spine of the left ilium, and in descending colon; instant escape of feces and flatus; a year after the patient enjoyed good health; soft stools passed on a few occasions at one period through the natural anus.

[6. AMUSSAT (1839.) *Vid. Gazette Médicale*, Oct. 1839.]—Woman, æt. 48. No stool for upwards of twenty-six days; nausea, vomiting, &c. Hard, round, immovable tumours, at the upper part of the rectum.

Incision in left lumbar region, and in descending colon. Four months after the operation, patient in excellent health: one or two evacuations daily; flatus passed by natural anus.

[7. AMUSSAT (1839.) *Vid. same paper.*]—Case previously treated by breaking down fungous masses in the rectum, and subsequently by cauterization. Patient in a deplorable state.

Opening made in left lumbar region and in descending colon; no escape of feces till the fifth day. Four months after, the patient in a better state than before the operation, and about to quit Paris for the country.

"When the disease is cancerous, the chances of ultimate advantage are, of course, vastly less than in cases of retention from simple induration; but even here it may be justifiably performed, provided the patient, after having been made fully acquainted with the nature and likelihood of the benefit to follow, still desires to undergo it." It is scarcely necessary to add, in defence of this position, that (even admitting the benefit obtained to be necessarily of short duration, which is by no means certain,) there are cases wherein the preservation of a given life, even for a few days, may be of the utmost consequence to families, in a worldly point of view.

It will be observed that in Pillore's case the unfortunate issue probably depended on the obstruction caused by the gravitation of the mercury into the pelvis: the site of the incision was also evidently ill-judged. The cause of death in Freer's case does not very clearly appear from his details.

M. Amussat's motives for preferring the operation proposed by Callisen (the lumbar incision, whereby implication of the peritoneum is avoided) to the inguino-abdominal incision of Littre, are explained in his papers referred to.

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METEOROLOGICAL REGISTER FOR MAY, 1841.*Kept at the Pennsylvania Hospital, by J. Conrad.*

Date.	Thermometer.			Barometer.		Dew Point	Winds.		Rain.	REMARKS.
	Max.	Min.	9 A.M.	10 A.M.	3 P.M.		Direction.	Force		
1	54	44	51	29.59	29.62	35	NW.	3		Morning cloudy; aft'n clear.
2	63	36	50	29.71	29.72	30	SW.NW.	5	.080	Rain in morn; gust at 1½ PM; afternoon clear.
3	51	32	39	29.97	29.92	18	NW.	3		Clear.
4	51	35	43	29.97	29.91	23	NW.	2		Clear.
5	56	36	52	29.96	29.88	38	SE.	2	.385	Clear in morn; rain aftn'n and evening.
6	60	45	53	29.89	29.94	34	NW.	3		Clear.
7	60	42	54	30.16	30.11	36	NW.NE.	1		Morn clear; afternoon cloudy; evening rain.
8	57	45	51	29.98	30.06	42	NE.NW.	1	.740	Rain till 7½ AM; clear at 5 PM.
9	68	42	59	30.22	30.16	40	NW.SW.	1		Morning clear; aft cloudy.
10	66	50	55	29.74	29.58	56	SE.SW.	1	.510	Rain till 10 AM; rain from 12 to 2, and 6 to 7 PM.
11	67	54	63	29.52	29.53	48	SW.NW.	2		Clear.
12	60	50	56	29.60	29.62	48	W.NW.	2	.166	Showers all day; partly clear.
13	65	46	57	29.83	29.80	41	NW.NE.	1	.115	Partly clear; rain in even'g.
14	62	43	50	29.88	29.88	36	NW.	2	.005	Partly clear; sprinkling of rain.
15	62	43	55	30.07	30.05	31	NE.SE.	1		Clear.
16	66	43	62	30.12	30.10	42	SW.NW.SE.	1		Clear.
17	76	48	63	29.82	29.72	40	SW.NW.	4	.016	Morn partly clear; gust at 2 PM; aft'n clear.
18	67	48	58	29.93	29.87	29	NW.	2		Clear.
19	64	48	58	29.96	29.96	36	N.	1		Clear.
20	69	46	60	30.09	30.08	40	NW.SE.	1		Clear.
21	78	49	64	30.13	30.08	55	SW.	2		Clear.
22	87	57	70	30.12	30.10	62	SW.	1		Morn clear; cl'dy from 3½ PM.
23	81	68	72	30.16	30.13	64	SW.	2		Morn partly clear; aft clear.
24	85	63	72	30.17	30.10	62	SW.	2		Clear.
25	83	64	74	30.13	30.07	64	SW.	2	.555	Morn fair; thundergust at 6 PM.
26	73	67	72	30.07	30.05	63	SW.	1	.160	Cloudy; rain from 10 AM. to 1½ PM.
27	71	64	70	30.10	30.10	64	NE.SE.	1	.421	Rain from 7 AM.
28	80	64	70	30.16	30.11	64	SE.SW.	1	.106	Clear from 11 AM; shower at 5 PM.
29	78	65	70	30.11	30.06	64	SW.	1		Morn cloudy; afternoon clear.
30	67	56	60	30.11	30.12	52	NE.E.	2	.010	Rain at 6 AM; eve'g clear.
31	71	51	61	30.12	30.05	40	NE.SE.	1		Clear.
Mean	67.67	49.80	59.48	29.98	29.95	45			3.269	

Mean temperature, 58.74° Clear days, - - 19
 " pressure, 29.97 inches. Cloudy, - - 9
 " dew-point, 45° Rain, - - 3
 Winds—W. to S. 12 days; S. to E. 4½ days; E. to N. 4½ days; N. to W. 10 days.